

Draft - Statement of Basis - Narrative

Title V Permit

Type of Permit Action: TV Renewal

Facility: El Paso Electric - Rio Grande Generating Station
Company: El Paso Electric Company
Permit No(s): 1554-M1 and revisions through M1R3, P127R4 and P127AR4
Tempo/IDEA ID No.: 122 - PRT20210001
Permit Writer: Urshula Bajracharya

Fee Tracking (not required for Title V)

Tracking	NSR tracking entries completed: <input type="checkbox"/> Yes <input type="checkbox"/> No
	NSR tracking page attached to front cover of permit folder: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Paid Invoice Attached: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Balance Due Invoice Attached: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Invoice Comments:

Permit Review	Date to Enforcement: N/A	Date of Enforcement Reply: N/A
	Date to Applicant: TBD	Date of Applicant Reply: TBD
	Date to EPA: TBD	Date of EPA Reply: TBD
	Date to Supervisor: Nov. 18, 2021	

1.0 Plant Process Description:

This facility is an electric power generating station. The facility has three dry bottom wall-fired gas steam boilers with three turbine generator units driven by high pressure, superheated steam producing 245 MW annual average. The only fuel used is pipeline quality natural gas.

2.0 Description of this Modification:

These permit applications P127R4 and P127AR4 are for TV renewal and Acid Rain renewal. There have been no New Source Review (NSR) actions since the previous TV renewal.

3.0 Source Determination:

1. The emission sources evaluated include the entire facility.

2. Single Source Analysis:

A. SIC Code: Do the facilities belong to the same industrial grouping (i.e., same two-digit SIC code grouping, or support activity)? Yes

B. Common Ownership or Control: Are the facilities under common ownership or control? Yes

C. Contiguous or Adjacent: Are the facilities located on one or more contiguous or adjacent properties? Yes

3. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes? Yes

4.0 PSD Applicability:

Title V action does not determine PSD applicability; see the History Table for a summary of previous PSD applicability determinations. However, this facility is a PSD major source that has never undergone a permitting action for a PSD major modification.

5.0 History: *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
P127-R4 and AR4	TBD	Title V Renewal	Title V and Acid Rain Permit Renewal.
P127-R3 and AR3	3-29-17	Title V Renewal	Title V and Acid Rain Permit Renewal. Add requirements to units EG-1 and SE-1, NSR exempt standby emergency generators and change the turbine core serial number which was replaced in 2014.
1554-M1-R3	11-13-15	NSR Admin Rev	Report NSR exempt standby emergency generator Cummins QSB4.5. A PSD applicability determination was completed to verify that emissions from the unit were not significant.
1554-M1-R2	10-20-14	NSR Admin Rev	Report NSR exempt standby emergency generator MTU DS250D6S. A PSD applicability determination was completed to verify that emissions from the unit were not significant.
P127-R2-M2	2-2-15	TV Significant Modification	<p>Add the Turbine (GT-9) and cooling tower (CT-9) and their conditions to the Title V permit. These units were authorized under NSR permit number 1554-M1 issued on 6-9-2011.</p> <p>Revise the following conditions in Permit P127R2M1 (see Section 2 of P127R2M2 Statement of Basis and section 3 of the application for more details):</p> <p>Condition A402.A For the Boiler NOx CEMs change the reported output of NOx emission rates to ppmvd of NOx corrected to diluent concentrations CO2 or O2 at standard conditions.</p> <p>Condition A402.C Change temperature from 40 deg F to 48 deg F when the FGR is not required to be fully operational to control NOx emissions from Boiler 8.</p> <p>Condition A405.A Boiler Cooling Tower: Reflect drift limits as a ratio of lb H2O drift/100 lb H2O water circulation and not as percent drift reduction (e.g. 0.005%).</p> <p>Condition A405.A Change condition to alternatively allow the determination and their records of the pump design capacity.</p>

5.0 History: *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
1554-M1R1	8-27-2014	NSR Admin Rev	Replace the super core (combustion unit) of Turbine GT-9 (unit serial # 821340, engine serial# 878-151) due to a catastrophic failure of the combustion unit. Per the applicant the replacement core (combustion unit serial # 878-168) is identical in performance and emissions as the original combustion unit. A PSD netting analysis was submitted by the permittee on October 15, 2014 per request of the Department. Based on the netting analysis the engine repair/replacement did not result in a significant net emissions increase and therefore was not subject to PSD permitting.
P127-R2-M1	7-6-12	TV Admin Rev	Remove Subpart G Title IV Acid Rain Reporting Requirements from Condition A402.B and Correcting the condition numbers of conditions A402.B through A402.E.
P127-A-R2	8-11-11	Acid Rain Renewal	Acid Rain Renewal. No modifications.
P127-R2	10-12-11	TV Renewal	Revisions to Boilers and Cooling towers: Remove 2nd and 3rd operating scenarios that allow diesel fuel with sulfur of 0.05% and 0.26; add induced flue gas recirculation (FGR) to reduce Boiler 8 NOx; increase Boiler 8 NOx pph limit from a 403.4 pph (3-hr average) to a maximum of 460.5 pounds per hour; reduce Boiler 8 NOx tpy limits from 1767 to 1514 tpy; increase Boiler 8 PM emissions; increase Boiler 7 and 8 CO pph emissions and remove 3-hr ave pph limits; decrease Boiler 6, 7, and 8 CO tpy limits; incorporate requirements of Consent Decree D-101-CV-2008-02777 Filed 7-31-09; add operational requirements for the boiler 6, 7, and 8 cooling towers. NOx 3090.8 tpy, CO 1013.9 tpy, VOC69.4 tpy, SOx1.3 tpy, TSP 170.2 tpy, PM10 96.7 tpy, PM2.5 91.8 tpy.

5.0 History: *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
1554-M1	6-9-11	NSR Permit, minor 20.2.72	<p>This is the first NSR application submitted for this facility. The Facility was constructed before 1972, before promulgation of the NSR regulation, and had not been modified until the addition of the units proposed in application 1554M1. The NSR permit was not issued before draft TV P127R2 was released and therefore is not an applicable requirement in P127R2 per 20.2.70.300.C(3) NMAC. If NSR 1554M1 is issued, the permittee must obtain an operating permit for any new sources within 12 months of commencement of operation of any new units or activities.</p> <p>Facility modifications include: Construct Unit GT-9, a 95.3 MW/142,576 hp natural gas fire simple cycle turbine, model GE LMS 100PA; add a cooling tower (unit CT-9) and selective catalytic reduction (SCR) system with associated ammonia system, ammonia tank, and fugitive ammonia emissions from the control device piping. Turbine CO and VOC emissions will also be controlled with an oxidation catalyst. VOC fugitive emissions will also be added from fuel piping for the turbine, Unit FUG 9</p> <p>Boiler Revisions to Issue NSR 1554M1: To issue NSR permit 1554M1 Boiler 8 required a NOx pph emission limit of 460.5 lb/hr for up to but no more than 7 hours per 24-hr period and a maximum 415.00 lb/hr for the rest of each 24 hour period (17 hrs per 24-hr period) to show compliance with NOx standards. Boiler 6 required an actual reduction in annual PM2.5 emissions and federally enforceable limit on annual PM2.5 emissions of 2.0 tpy. EPE chose this reduction to avoid PSD permitting for 1554M1. The Boiler 6 PM2.5 reduced limit is not effective until 30 days before first fuel firing of turbine GT-9.</p> <p>NOx 3130.0 tpy, CO 1108.0 tpy, VOC 78.7 tpy, SOx 1.6 tpy, TSP 166.1 tpy, PM10 91.3 tpy, PM2.5 86.4 tpy.</p>

5.0 History: *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
D-101 CV-2008-02777	7-31-09	Consent Decree	Consent Decree D-101 CV-2008-02777 for NOV ELP-0122-0501 for violating CO, NOx, and SO2 emissions limits. Corrective Actions: tune each boiler at the Rio Grande Generating Station annually; report performance of tuning and the before and after tuning NOx lb/mmbtu and CO pph emissions; conduct CEMs calibrations, install software that records the calibrations, and submit verification of such in 30 days; monitor sulfur dioxide using actual sulfur content data in accordance with 40 CFR 75, Appendix D to calculate SO2 emissions and notify of such within 30 days; install flue gas recirculation (FGR) on boiler 8 (EPN-1). Implementation of Permit Conditions: maximum allowable NO2 emission rate (20.2.33 NMAC 0.3 lb/mmbtu) for each boiler 6, 7, & 8 shall be interpreted as having an averaging time of 3 hours and shall be interpreted as having 2 significant figures (0.30 lb/mmbtu – vs – 0.3 lb/mmbtu). Integration with Permit - submit application in 180 days to incorporate the following conditions: annual tuning of 3 boilers as required by section 1 of consent decree; operation and maintenance of boiler 8 (EPN-1) FGR; state maximum NO2 emission limit of 0.3 lb/mmbtu (20.2.33 NMAC) using 2 significant figures 0.30 lb/mmbtu and determined with a 3 hr-averaging time.
P127R1M1	6-6-08	TV administrative Revision	Change responsible official to Mr. Andres Ramirez.
P127-A-R1	9-22-05	TV Renewal	Issued 5 year T-IV permit for Boiler Units 6, 7, and 8 with 40 CFR 72.9(c)(1) allowances and ORIS code 2444. NOx limitations in 40 CFR 76 are only applicable to coal-fired units and thus do not apply to this facility.
P127R1	9-22-05	TV Renewal	Scenario 1 (natural gas): NOx 3342.4 tpy, CO 3504.0 tpy, VOC 19.8 tpy, SOx 29.1 tpy, PM10 8.7 tpy, Chlorine 4.1 tpy, formaldehyde 1.1 tpy, and hexane 19.9 tpy. Scenario 2/3 (diesel): NOx 3343.2 tpy, CO 3777.8 tpy, VOC 21.6 tpy, SOx 227.4 tpy, PM10 17.8 tpy, Chlorine 4.1 tpy. Permitted Units 6, 7, and 8. Number 2 diesel fuel is available for backup fuel in the event of a gas supply curtailment. The permit places restrictions on unit 8 limiting the output to 145 Megawatts average output. This permit is a renewal of the P127M1.

5.0 History: *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
P127M1-Rev	8/31/05	TV Revision	Scenario 1 (natural gas): NOx 3343.7 tpy, CO 3504.0 tpy, VOC 60.4 tpy, SOx 6.7 tpy, TSP 83.4 tpy, Chlorine 4.1 tpy. Scenario 2 (diesel): NOx 3376.2 tpy, CO 3536.9 tpy, VOC 61.1 tpy, SOx 546.8 tpy, TSP 135.7 tpy, Chlorine 4.1 tpy. A permit reopening to adjust emission limits to more accurately reflect the potential to emit for the 2 operating scenarios.
P127M1	6/16/03	TV reopening	Scenario 1: NOx 3343.7 tpy, CO 3504.0 tpy, SOx 6.7 tpy, TSP 83.4 tpy, VOC 60.4 tpy, and Chlorine 4.1 tpy. Scenario 2: NOx 3376.8 tpy, CO 3536.9 tpy, SOx 546.8 tpy, TSP 135.7 tpy, VOC 61.1 tpy, and Chlorine 4.1 tpy. Adjust emissions limits to "more accurately reflect" the potential to emit for the 2 operating scenarios. Permitted Units 6, 7, and 8.
P127	1/27/00	New TV	NSR and PSD "Grandfathered" Facility (except with regard to installing lo-NOx burners on Unit 8). Both scenarios: NOx 3,672.9 tpy, CO 21,900.0, SOx 651.8 tpy, TSP 107.9 tpy, VOC 23.0 tpy, and Chlorine 4.1 tpy. Permitted Units 6, 7, and 8, Babcox and Wilcox boilers that can use either natural gas or diesel as fuel. This facility is an electric power generation station operated by three dry bottom, wall-fired gas steam boilers. There are three turbine generator units driven by high pressure, superheated steam. Total electric power production of the facility from these three generators is 288 MW gross, and 261 MW net. The primary fuel used at this facility is pipeline quality natural gas. Number 2 diesel oil is available for use as a back-up fuel in the event of gas supply curtailment.
1554	5-28-98	New NSR permit - denied	NSR permit application closed/denied effective 5-28-98. NSR permit application submitted 6-94 to install lo-NOx burners on Unit 8 to meet state limit of 0.3 lb/MMBtu. Unit 8 has always had to run at reduced capacity to meet state emission reg for gas fired equipment. Application ruled complete 5-28-97 and denied effective 5-28-98.
P127A	12-12-97	New Acid Rain Permit	Effective 1-1-00 to 12-31-04. Permitted Units 6, 7, and 8 with SO2 allowances.
No permit number	4-21-97	Letter of understanding	Letter of understanding between NMED and El Paso Electric Company to install low-NOx burners and reduce capacity to 145 MW on unit 8 to meet NOx emissions limit of 0.30 lb/MMBtu and comply with 20.2.33 NMAC. Installation of LNB and operating at reduced firing rate would "result in a net decrease in emissions of NO2 and CO and would not result in an increase in other air contaminants".

6.0 Public Response/Concerns: As of the date in the footer of this document or the issuance date of this permit, this permit writer is not aware of any public comment or concern.

7.0 Compliance Testing:

Unit No.	Compliance Test	Test Dates
GT-9	Initial CEMS Certification & NOx, CO Initial Compliance Test	May-13
EPN-3	PM Stack Test as required by NSR Permit 1554-M1	Jun-13
EPN-4	PM Stack Test as required by NSR Permit 1554-M1	Jul-13
GT-9	PM Stack Test as required by NSR Permit 1554-M1	Aug-13
EPN-3	RATA Test as required by Title V Permit P127-R3	9/20/2013
EPN-4	RATA Test as required by Title V Permit P127-R4	9/20/2013
EPN-1	RATA Test as required by Title V Permit P127-R5	9/19/2013
GT-9	RATA Test as required by Title V Permit P127-R6	9/23/2013
EPN-3	RATA Test as required by Title V Permit P127-R7	9/24/2014
EPN-4	RATA Test as required by Title V Permit P127-R8	9/25/2014
EPN-1	RATA Test as required by Title V Permit P127-R9	9/26/2014
GT-9	RATA Test as required by Title V Permit P127-R10	9/27/2014
EPN-3	RATA Test as required by Title V Permit P127-R11	9/9/2015
EPN-4	RATA Test as required by Title V Permit P127-R12	9/10/2015
EPN-1	RATA Test as required by Title V Permit P127-R13	9/10/2015
GT-9	RATA Test as required by Title V Permit P127-R14	9/11/2015
EPN-3	RATA Test as required by Title V Permit P127-R15	9/16/2016
EPN-4	RATA Test as required by Title V Permit P127-R16	9/17/2016
EPN-1	RATA Test as required by Title V Permit P127-R17	9/17/2016
GT-9	RATA Test as required by Title V Permit P127-R18	10/11/2016
EPN-3	RATA Test as required by Title V Permit P127-R19	9/15/2017
EPN-4	RATA Test as required by Title V Permit P127-R20	9/16/2017
EPN-1	RATA Test as required by Title V Permit P127-R21	9/16/2017
GT-9	RATA Test as required by Title V Permit P127-R22	9/21/2017
EPN-3	RATA Test as required by Title V Permit P127-R23	10/30/2018
EPN-4	RATA Test as required by Title V Permit P127-R24	9/18/2018
EPN-1	RATA Test as required by Title V Permit P127-R25	9/18/2018
GT-9	RATA Test as required by Title V Permit P127-R26	9/17/2018
EPN-4	RATA Test as required by Title V Permit P127-R27	9/18/2019
EPN-1	RATA Test as required by Title V Permit P127-R28	9/18/2019
GT-9	RATA Test as required by Title V Permit P127-R29	9/19/2019
EPN-4	RATA Test as required by Title V Permit P127-R30	8/27/2020
EPN-1	RATA Test as required by Title V Permit P127-R31	8/27/2020
GT-9	RATA Test as required by Title V Permit P127-R32	8/28/2020

8.0 Startup and Shutdown:

- A. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? No
- B. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational

plan was developed in accordance with 20.2.72.203.A.5 NMAC? No

- C. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? No
- D. Does the facility have emissions due to routine or predictable startup, shutdown, and maintenance? If so, have all emissions from startup, shutdown, and scheduled maintenance operations been permitted? No. The facility does not have SSM&M emissions.

9.0 Compliance and Enforcement Status [Title V and NSR/PSD new or modification].

According to response from Teri Waldron on January 3, 2022: "There is no outstanding notice of violation and no settlement agreement for which all actions have not been completed. No compliance plan needs to be placed in the Title V Permit."

10.0 Modeling:

Modeling is not required for Title V application. Modeling was performed for NSR 1554-M1.

1554-M1: Sufi Mustafa of the Air Quality Bureau conducted an air dispersion modeling review and determined that EPE's modeling analysis demonstrates that operation of the facility described in the application neither causes nor contributes to any exceedances of applicable air quality standards. The standards relevant at this facility are NAAQS for CO, NO₂, PM_{2.5} and PM₁₀; NMAAQs for CO, NO₂ and TSP and Class I and Class II PSD increments for NO₂ and PM₁₀. The analyses also shows that ammonia concentrations will be below 1/100th (1%) of the Occupational Exposure Level (OEL) for ammonia. As part of AQB's review, all input values such as pound per hour emission rates and stack parameters that were used in air dispersion modeling are checked for accuracy.

11.0 State Regulatory Analysis (NMAC/AQCR):

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.1	General Provisions	Yes	Entire Facility	The facility is subject to Title 20 Environmental Protection Chapter 2 Air Quality of the New Mexico Administrative Code so is subject to Part 1 General Provisions, Update to Section 116 of regulation for Significant figures & rounding. Applicable with no permitting requirements.
2.3	Ambient Air Quality Standards	No for TV	Entire Facility	20.2.3.9 NMAC, LIMITATION OF APPLICABILITY TO 20.2.70 NMAC. The requirements of NMAAQs are not applicable requirements under 20.2.70 NMAC, as defined by 20.2.3.9 NMAC, 20.2.3.9 NMAC does not limit the applicability of this part to sources required to obtain a permit under the minor NSR regulation, 20.2.72 NMAC, nor does it limit which terms and conditions of NSR permits issued pursuant to 20.2.72 NMAC are applicable requirements in a Title V permit.
2.7	Excess Emissions	Yes, Always	Entire Facility	Applies to all of the facility's sources.

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.33	Gas Burning Equipment - Nitrogen Dioxide	Yes	Boilers: EPN-3 (Boiler 6), EPN-4 (Boiler 7) and EPN-1 (Boiler 8)	<p>This facility has existing gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. The facility has 3 boilers that burn greater than 1,000,000 MMBTU/yr (at least 115 MMBtu/hr at 8760 hrs).</p> <p>The definition of gas burning equipment in this regulation is very broad, implying that it could apply to gas turbines. However, research into the hearing record indicated that this regulation was only intended to apply to external combustion equipment such as heaters and boilers. See procedure at: https://www.env.nm.gov/aqb/procedures/NMAC-Applicability-Final.doc.</p>
<p>Notes from previous TV Renewal P127-R3:</p> <p>6/EPN-3, 610 MMBtu/hr, constructed 1-1-1957</p> <p>7/EPN-2, 590 mmbtu/hr, constructed 1-1-1958</p> <p>8/EPN-1, 1570 MMBtu/hr, constructed 1-10-1968</p> <p>20.2.33.7.A. Existing (construction commenced or modification commenced before 2-17-72)</p> <p>Per applicant none of the units have been modified since construction and are defined as existing units.</p> <p>20.2.33.108.B limits NO2 emissions per unit to ≤ 0.30 lb/mmbtu of heat input from <u>existing</u> gas burning units with a heat input greater than 1,000,000 million British Thermal Units per year per unit.</p> <p>Compliance Demonstration: The permittee will demonstrate compliance with 20.2.33.108.B through NOx CEMs required by 40 CFR 75.</p> <p>Note: Permittee calculated their pph and tpy NOx emissions by converting from 0.30 lb/mmbtu except for boiler 8 where they used 0.257 mmbtu/hr to calculate tpy. Permittee indicated that CEMs data shows that <u>average</u> heat rate capacity of boiler 8 over a year's time is 0.257 lb/mmbtu. Permittee must also demonstrate compliance with the pph and tpy limits using CEMs data.</p>				
2.61	Smoke and Visible Emissions	Yes	Boilers: EPN-3 (Boiler 6), EPN-4 (Boiler 7) and EPN-1 (Boiler 8); Turbine Unit GT-9; Standby Generators: EG-1 and SE-1	<p>This regulation that limits opacity to 20% applies to Stationary Combustion Equipment, such as engines, boilers, heaters, and flares unless your equipment is subject to another state regulation that limits particulate matter such as 20.2.19 NMAC (see 20.2.61.109 NMAC). If equipment at your facility was subject to the repealed regulation 20.2.37 NMAC it is now subject to 20.2.61 NMAC.</p>
2.70	Operating Permits	Yes	Entire Facility	The source is a Title V Major Source as defined at 20.2.70.7 NMAC.
2.71	Operating Permit Fees	Yes	Entire Facility	Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC.

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.72	Construction Permits	Yes	GT-9, CT-9, FUG-9, and entire facility as applicable	<p>This regulation establishes the requirements for obtaining a construction permit. The facility is a stationary source that has potential emission rates great than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Air Quality Standard.</p> <p>Parts of this facility pre-dated 20.2.72 NMAC promulgation and were previously grand-fathered, but any future NSR modification will require a full facility review as this facility is a PSD major source with NSR Permit 1554-M1. In addition, this facility is now located in an ozone nonattainment area (see NMAC Part 79 below). Units GT-9, CT-9, and FUG-9 were constructed upon issuance of 1554-M1 in 2011 and were assigned applicable requirements in NSR Permit 1554-M1. Units EPN-1, EPN-2, EPN-4, F-1, and F-2 were constructed before 1972 but were assigned emission limits and applicable requirements in the last TV Renewal Permit P127-R3. Further, a consent decree was issued for this facility in 2009.</p>
2.73	NOI & Emissions Inventory Requirements	Yes	Entire Facility	Applicable to all facilities that require a permit. PER > 10 tpy for a regulated air contaminant.
2.74	Permits-Prevention of Significant Deterioration	Yes	Entire Facility	<p>This facility is a major source as defined in 20.2.74.7.AG(1) that has never undergone a PSD review for a major modification. The permittee must determine PSD applicability for any modifications in accordance with 20.2.74.200 NMAC.</p> <p>20.2.74.7.AG (1) A stationary source listed in Table 1 of this Part (20.2.74.501 NMAC) which emits, or has the potential to emit, emissions equal to or greater than one hundred (100) tons per year of any stack and fugitive emissions (as defined) of any regulated air pollutant; or</p> <p>20.2.74.7.AG (2) A stationary source not listed in Table 1 of this Part (20.2.74.501 NMAC) and which emits or has the potential to emit stack emissions of two hundred fifty (250) tons per year or more of any regulated pollutant.</p> <p>This facility is a Table 1 source at 20.2.74.501.F NMAC, fossil fuel boilers (or combination thereof) totaling more than 250 million BTU/hr heat input, making it subject at the 100 tpy threshold.</p>

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
<p>Notes on history from previous TV P127-R3:</p> <p>Prior NSR action 1554-M1: Initially TSP and PM2.5 project emissions from addition of new turbine, cooling tower, and ancillary equipment were significant. PM10 project emissions were also significant, but this would be subject to non-attainment permitting. On 2-10-11, the applicant lowered TSP, PM10, and PM2.5 emission rates from Turbine GT-9 and requested limits on Boiler 6 to net out of PSD for PM2.5 and reduce PM10 emission to below significance.</p> <p>Historically, according to the applicant, all units, before addition of turbine GT-9, were constructed before and have not been modified since the effective date of NMAC Part 74 (7-20-95) and the 1977 CAA Amendments when PSD was first implemented (40 CFR 52.21, 6-19-78). Source is listed in Table 1 of 20.2.74.501 and is a major source as defined in 20.2.74.7.AF(1) but has never undergone a PSD review. Any future major modifications to this facility (as defined in 20.2.74.7.AD) will be subject to PSD review.</p>				
2.77	New Source Performance Standards	Yes	See Sources subject to 40 CFR 60	Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60.
2.79	Permits - Nonattainment Areas	Yes	Applicability determination needed for modifications	<p>This facility is located within the Sunland Park Marginal Ozone Nonattainment Area (based on 2015 8-hour ozone NAAQS of 0.070 ppm) that was designated on April 30, 2018. The nonattainment area has recently been expanded and now also includes the remanded area of El Paso County Texas per Federal Register of 11-30-2021 (Additional Revised Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards: El Paso County, Texas and Weld County, Colorado; Vol. 86, No. 227, pages 67864-67874), with designated name of El Paso-Las Cruces, TX-NM.</p> <p>All emission units and sources not previously assessed will need review in future NSR actions, including all VOC sources such as piping fugitives from boilers (Unit F-2) and piping fugitives from the turbine (FUG-9).</p>
<p>Historical Notes from TV Renewal P127-R3:</p> <p>A determination for PM10 emissions increases due to future modifications is required since the facility has the potential to affect the adjacent City of El Paso, TX PM10 nonattainment area. There is also the Anthony, New Mexico PM10 nonattainment area to consider as well (NM submitted the State Implementation Plan (SIP) back on November 8, 1991).</p> <p>In 2011, PM10 emission limits for Turbine GT-9 were significant, therefore NSR 1554-M1 permit required a lower PM10 emission limit to avoid nonattainment permitting. To date, the facility has not undergone an NSR major modification subject to the provision of 20.2.79 NMAC.</p> <p>The modeled radius of impact is used to determine if project emissions affect the adjacent PM10 nonattainment area.</p>				

<u>Citation</u> <u>20 NMAC</u>	<u>Title</u>	<u>Applies</u> <u>(Y/N)</u>	<u>Unit(s) or</u> <u>Facility</u>	<u>Justification:</u>
2.84	Acid Rain Permits	Yes	Boilers EPN-3 (6), EPN-4 (7) and EPN-1 (8), and Turbine Unit GT-9	<p>20.2.84.8 ADOPTION BY REFERENCE OF FEDERAL ACID RAIN PERMITTING REQUIREMENTS: Except as otherwise provided in 20.2.84.10 NMAC, the portions of the federal acid rain program promulgated by the United States environmental protection agency under 40 CFR Part 72 (including all portions of Parts 73, 74, 75, 77 and 78 referenced therein) and 76, and amended in the federal register through May 18, 2005, to implement Sections 407 (nitrogen oxides emission reduction program), 408 (permits and compliance plans) and 412 (monitoring, reporting and recordkeeping requirements) of the federal act, are hereby incorporated into this part.</p> <p>20.2.84.10 MODIFICATIONS AND EXCEPTIONS: The following modifications or exceptions are made to the incorporated federal rules: A. for purposes of this part, the term "permitting authority" shall mean the department; and B. requirements imposed on affected sources under the federal Act shall not be subject to NMSA 1978, Section 74-2-8 [Variances].</p>

12.0 Federal Regulatory Analysis:

<u>Federal Regulation</u>	<u>Title</u>	<u>Applies</u> <u>(Y/N)</u>	<u>Unit(s) or</u> <u>Facility</u>	<u>Comments</u>
Air Programs Subchapter C (40 CFR 50)	National Primary and Secondary Ambient Air Quality Standards	Yes	Entire Facility	Independent of permit applicability; applies to all sources of emissions for which there is a Federal Ambient Air Quality Standard.
NSPS Subpart A (40 CFR 60)	General Provisions	Yes	See sources subject to a Subpart in 40 CFR 60	Applies if any other subpart applies.
40 CFR 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971	No		<p>Applies to units with heat input greater than 250 MMBtu/hr (73 MW).</p> <p>Per Applicant: EPN-3/boiler 6 constructed 1-1-56 EPN-2/boiler 7 constructed 1-1-58 EPN-1/boiler 8 constructed 1-10-68 All units were constructed before 1971. Per applicant, no units have been reconstructed or modified as defined.</p>

<u>Federal Regulation</u>	Title	Applies (Y/N)	Unit(s) or Facility	Comments
40 CFR 60.40a, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for which Construction Commenced after 9-18-78.	No		Applies to units with heat input greater than 250 MMBtu/hr (73 MW). All units were constructed before 1978. Per applicant no units have been reconstructed or modified.
40 CFR 60.40b, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units for which Constructed Commenced after 6-19-84	No		Applies to units with heat input greater than 100 MMBtu/hr (29 MW). All units were constructed before 1984. Per applicant no boilers have been reconstructed or modified.
40 CFR 60.40c, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	No		Applicable to steam generating units, boilers, heaters for which construction, modification or reconstruction is commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 MW (100 MMBtu) or less, but greater than or equal to 2.9 MW (10 MMBtu). All units at this facility were constructed before the applicable date and also have capacities greater than this rule.
40 CFR Subparts K, Ka, and Kb	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After 6-11-73 and before 5-17-78 (K) ; after 5-18-78 and before 7-23-84 (Ka) ; and after July 23, 1984 (Kb)	No		AST4 Diesel Oil Storage Tank (24,374 bbl, 3,875 m ³ , and 1,023,708 gal) was reconstructed in 2006 therefore neither K nor Ka applies. Kb does not apply since the vapor pressure of the diesel is < 3.5 kPa (60.110b(b)). Applicant reports vapor pressure < 10 mmHg which is equivalent to 0.19 PSD and 1.3 kPa. AP42 7.1-2 reports true vapor pressure of 0.022 psi for distillate fuel oil no. 2 at 100 F.
40 CFR 60, Appendix F	Quality Assurance Procedures	No		The permittee is not subject to this part due to a federal NSPS but has agreed to federally enforceable conditions. For the Boilers 6, 7, and 8 CO CEMS the permittee will perform

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				<p>RATA tests every 3 years in accordance with 40 CFR 60, Appendix F.</p> <p>For the CO CEMS for Turbine GT-9 the permittee will complete the QA/AC (periodic Cylinder Gas Audits (CGAs) in Appendix F. No RATA tests are required.</p>
<p>1.1 Applicability. Procedure 1 is used to evaluate the effectiveness of quality control (QC) and quality assurance (QA) procedures and the quality of data produced by any continuous emission monitoring system (CEMS) that is used for determining compliance with the emission standards on a continuous basis as specified in the applicable regulation. The CEMS may include pollutant (e.g., SO₂ and NO_x) and diluent (e.g., O₂ or CO₂) monitors.</p>				
40 CFR 60, Appendix B	Performance Specification 4, 4A, or 4B, Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources	No		CO CEMS Turbine GT-9: The permittee is not subject to this part due to a federal NSPS but uses this procedure to audit the CO CEMS.
<p>Specifications 4, 4A, and 4B are for evaluating the acceptability of carbon monoxide (CO) continuous emission monitoring systems (CEMS) at the time of installation or soon after.</p> <p>Permittee will need to determine the applicable performance specification for the GT-9 CO CEMS: Performance Specification 4—Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources Performance Specification 4A—Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources Performance Specification 4B—Specifications and Test Procedures for Carbon Monoxide and Oxygen Continuous Monitoring Systems in Stationary Sources</p>				
40 CFR 60 Subpart IIII (Quad-I)	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Yes	EG-1, SE-1	The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. This regulation applies to the emergency generator and emergency fire water pump within the facility.
40 CFR 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines	Yes	GT-9	<p>Applies to turbines with heat input ≥ 10 MMBtu/hour and were installed after the applicability date of February 18, 2005.</p> <p>Unit GT-9 was installed/constructed after the 2-18-2005 date. GT-9 was initially permitted through NSR 1554-M1 issued on June 9, 2011.</p>

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
<p><u>Notes from previous TV Renewal P127-R3:</u></p> <p>60.4305(a) applies to stationary combustion turbines with a heat input greater than 10 MMBtu/hr at HHV. Emissions data show GT-9 has a heat rate capacity between 782.5 to 888.1 MMBtu/hr HHV at 100% load.</p> <p>64.4320(a) Table 1 – NO_x emission standard is 15 ppm at 15% O₂ or 54 ng/j of useful output (0.43 lb/MWh) since emissions data shows capacity of turbine is > 850 MMBtu/hr and the unit is a new turbine firing natural gas. Manufacturer guarantees after control NO_x to 2.8 ppmvd @ 15% O₂ site conditions.</p> <p>60.4330 (a) SO₂ emission limit (1) ≤ 110 ng/J or 0.90 lb/MWh gross output or (2) may not burn fuel containing total potential sulfur emissions in excess of 26 ng SO₂/J or 0.060 lb SO₂/MMBtu of heat input.</p> <p>60.4335 NO_x Compliance with water/steam injection – does not apply. Not used as a control device but for power augmentation.</p> <p>60.4340(b) NO_x monitoring uses CEMs for NO_x so are subject to (b) (1) CEMs as in 60.4335(b) and 60.4345</p> <p>60.4365(a) SO_x monitoring is exempt since the permittee can provide a contract for fuel showing the total sulfur content in the natural gas is less than 20 gr/100 scf.</p> <p>60.4375 Reporting requirements as they apply</p> <p>60.4400 Initial Performance Test (a) must conduct initial test per 60.8 and subsequent tests on an annual basis, no more than 14 calendar months following the previous test. (b)(5) If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405) as part of the initial performance test of the affected unit.</p> <p>60.4405 specifies the performance test requirements if a NO_x diluent CEMS is used.</p>				
40 CFR 60 Subpart JJJJ	Standards of Performance for Stationary Spark ignition internal combustion engines	No		The only two reciprocating internal combustion engines (RICE) at the facility combust diesel fuel and are compression ignition engines. This regulation applies to spark ignition engines (e.g. ones that combust natural gas).
40 CFR 60 Subpart UUUUa	Emissions Guidelines for GHG Emissions from Existing Electric Utility Generating Units	No		<p>This regulation applies to existing designated units.</p> <p>60.5700a Purpose: standards of performance for GHG</p> <p>60.5710a applies to Electric Generating Units (EGUs) that commenced construction on or before January 8, 2014.</p> <p>This facility does not meet the designated criteria at 60.5775a(b) because it does not burn coal, but only natural gas. The turbine is excluded at 60.5780a(a)(3) as a simple cycle turbine.</p>
40 CFR 60 Subpart TTTT	Standards of Performance for GHG Emissions for Electric Generating Units	No		<p>60.5508</p> <p>60.5509 applies to EGUs that commenced construction after January 8, 2014, or after June 18, 2014 (for GHG applicability criteria).</p> <p>The boilers and turbine commenced construction before June 18, 2014.</p> <p>Boiler 6: 1956</p> <p>Boiler 7: 1958</p> <p>Boiler 8: 1968</p> <p>Turbine 9: 2012</p>
MACT Subpart A	General Provisions	Yes	See sources	Applies if any other subpart applies.

<u>Federal Regulation</u>	Title	Applies (Y/N)	Unit(s) or Facility	Comments
(40 CFR 63)			subject to a Subpart in 40 CFR 63	
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	No		F-2 fugitive emissions from natural gas piping. According to fuel analysis, natural gas contains less than 5% organic HAPs. (63.160(a) and definition of “in organic hap service” in 63.161)
40 CFR 63 Subpart Q	National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers	No		In previous applications, the applicant had stated that they do not use chromium based water treatment chemicals in their cooling towers. Cooling tower water is treated with chlorine (Cl ₂). 63.400(a) The provisions of this subpart apply to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals and are either major sources or are integral parts of facilities that are major sources as defined in §63.401.
40 CFR 63 Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	No		Facility is not a major HAP source.
40 CFR 63 Subpart JJJJJ	Emission standards for Area Source Boilers and Process Heaters	No		63.11194(b) boilers are existing units at an area HAP source. Per 63.11195(e) the boilers are not subject since they are “gas-fired” boilers. Per 63.11237 a gas-fired boiler is one that uses gaseous fuels, such as natural gas, only.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	No		This is not a major HAP source and according to 63.7491(c) Boilers 6, 7, and 8 are exempt from this MACT since they are electric utility steam generating units.
40 CFR 63, Subpart UUUUU	National Emission Standards for HAPs for Coal and Oil Fired Electric Steam Generating Units	No		Per 63.9981, this regulation applies to coal or oil fired Electric Generating Units (EGU). The permittee is not subject since it does not use coal or oil as fuel for their electric generating boiler units.

<u>Federal Regulation</u>	Title	Applies (Y/N)	Unit(s) or Facility	Comments
40 CFR 63 Subpart ZZZZ (Quad-Z)	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)	Yes	EG-1, SE-1	See 63.6580 and EPA Region 1's Reciprocating Internal Combustion Guidance website. A facility is subject to this subpart if they own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. This facility has a standby emergency generator and emergency fire water pump that comply with MACT ZZZZ by complying with NSPS 40 CFR 60 Subpart IIII.
40 CFR 64	Compliance Assurance Monitoring	No		Applies to units equipped with a control device and the uncontrolled emissions for the unit are above the Title V major source thresholds.
Applicability per unit per pollutant: HAPs all Units: Facility is minor for HAPs and has no controls limiting HAPs. Turbine: NO _x and CO emissions are above 100 tpy before controls but are monitored with CEMs. Per 64.2(b)(vi) an emission limitation or standard for which a Part 70 or 71 permit specifies a continuous compliance determination method, as defined in 64.1, are exempt from CAM. <i>Continuous compliance determination method</i> means a method, specified by the applicable standard or an applicable permit condition, which: (1) Is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and (2) Provides data either in units of the standard or correlated directly with the compliance limit. Boilers 6, 7, and 8 — no control device, except an FGR is used to limit NO _x emissions. However, 40 CFR 75 requires a CEMs to report emissions in lb/mmBtu so is not subject to CAM (64.2(b)(1)(iv)). All other pollutants from the Boilers are not limited by a control device. Cooling Towers — TSP, PM ₁₀ , PM _{2.5} , and Cl ₂ emissions are all minor.				
40 CFR 68	Chemical Accident Prevention	No		This regulation was revised January 13, 2017. However, the threshold quantities for chlorine and ammonia (aqueous 20% concentration or greater) were not changed. Therefore, the permittee is still not subject to this subpart. Applies to owners or operators of stationary sources with more than a threshold quantity of a regulated substance. According to the applicant, the amount of chlorine stored on site (150 lb cylinders used as a biocide in the cooling towers) does not exceed the threshold quantity of 2,500 lbs listed on Table 1 in 68.130 (List of Regulated Toxic Substances and Threshold Quantities for Accidental Release Prevention). 40 CFR 68 applies only when the aqueous ammonia concentration is 20% or more. The aqueous ammonia used for the SCR is 19% aqueous ammonia. Sulfuric acid was not found on Table 1. Sulfuric acid is used to regulate the pH of the cooling tower water.

<u>Federal Regulation</u>	Title	Applies (Y/N)	Unit(s) or Facility	Comments
40 CFR 72	Title IV – Acid Rain	Yes	EPN-1, EPN-3, EPN-4, GT-9	<p>(a) Each of the following units shall be an affected unit, and any source that includes such a unit shall be an affected source, subject to the requirements of the Acid Rain Program: (1) A unit listed in table 1 of §73.10(a) of this chapter. (2) A unit that is listed in table 2 or 3 of §73.10 of this chapter and any other existing utility unit, except a unit under paragraph (b) of this section.</p> <p>Renewed Acid Rain Permit Number P127AR4 will apply to Units 6, 7, 8, and GT-9.</p> <p>Boilers 6, 7, and 8 and turbine GT-9 are subject. [AQB is the permitting authority and EPA is the administrator]</p> <p>Note: Acid Rain program identifies units as boilers 6, 7, and 8 and not by EPN-1, 2, and 3.</p> <p>Turbine GT-9 will be a new unit per 72.6(a)(3)(i).</p> <p>Note: The permittee removed the option to operate with diesel fuel. The facility will only operate using natural gas.</p>
<p>72.6(a) Applicability</p> <p>Boilers 6, 7, and 8 are “existing utility units” (72.2 definitions) and listed in Table 2 – Phase II Allowance Allocations in Subpart 73.10 and are not exempt per 72.6(b). 72.6(a) Each of the following units shall be an affected unit, and any source that includes such a unit shall be an affected source, subject to the requirements of the Acid Rain Program: (2) A unit that is listed in table 2 or 3 of §73.10 of this chapter and any other existing utility unit, except a unit under paragraph (b) of this section.</p> <p>The permittee certified that they hold SO₂ allowances in accordance with 72.9(c)(1).</p> <p>Turbine GT-9 is subject to Acid Rain per 72.6(a)(3)(i) as a new unit. Per 72.30(b)(ii) an Acid Rain permit application is due at least 24 months before the date on which the unit commences operation.</p> <p>72.2 Definitions.</p> <p>Acid Rain Program means the national sulfur dioxide and nitrogen oxides air pollution control and emissions reduction program established in accordance with title IV of the Act, this part, and parts 73, 74, 75, 76, 77, and 78 of this chapter.</p> <p>Administrator means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.</p> <p>Permitting authority means either:</p> <p>(1) When the Administrator is responsible for administering Acid Rain permits under subpart G [phase II implementation] of this part, the Administrator or a delegated agency authorized by the Administrator; or</p> <p>(2) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to administer Acid Rain permits under subpart G of this part and part 70 of this chapter.</p>				
40 CFR 73	Title IV – Acid Rain Sulfur Dioxide Allowance Emissions	Yes	EPN-1, EPN-3, EPN-4, GT-9	<p>The following parties shall be subject to the provisions of this part:</p> <p>(a) Owners, operators, and designated representatives of affected sources and affected units pursuant to §72.6 of this chapter; (b) Any new independent power producer as defined in section 416 of the Act and §72.2 of this chapter, except as provided in section 405(g)(6) of the Act; (c) Any owner of an affected unit who may apply to receive allowances under the</p>

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				<p>Energy Conservation and Renewable Energy Reserve Program established in accordance with section 404(f) of the Act; (d) Any small diesel refinery as defined in §72.2 of this chapter, and (e) Any other person, as defined in §72.2 of this chapter; who chooses to purchase, hold, or transfer allowances as provided in section 403(b) of the Act.</p> <p>EPA is the administrator.</p>
<p>73.2(a) applies to owners, operators, & designated representatives of affected sources subject to 72.6.</p> <p>73.1 Scope: 40 CFR 73 establishes requirements and procedures for allocating sulfur dioxide allowances and their tracking, holding, transferring, offsetting, selling, and other requirements.</p> <p>Phase II SO₂ allowances are found in 73.10 (b) Table II: Phase II allowances (2) The Administrator will allocate allowances to the compliance account for each source that includes a unit listed in table 2 of this section in the amount specified in table 2 column F to be held for the years 2010 and each year thereafter.</p>				
Title IV-Acid Rain 40 CFR 75	Continuous Emissions Monitoring	Yes	EPN-1, EPN-3, EPN-4, GT-9	<p>See 40 CFR 75.2. This may apply if your facility generates commercial electric power or electric power for sale.</p> <p>Boilers 6, 7, and 8 and Turbine GT-9 Applicant defines boilers as a gas-fired non-peaking units so Part 75 only requires SO₂, NO_x, and CO₂ emissions monitoring. Although NO_x emission reduction (Part 76) is not required for gas-fired units, NO_x monitoring is still required in Part 75. Gas-fired units are exempt from opacity monitoring (75.14(c)).</p> <p>Since coal is not used as fuel and units are not subject to a State or Federal Hg mass emissions reduction program, Hg monitoring is not required (75.80(a) & (1)).</p>
<p>72.2 Gas-fired means: (2) For purposes of part 75 of this chapter, the combustion of:</p> <p>(i) Natural gas or other gaseous fuel (including coal-derived gaseous fuel) <u>for at least 90.0 percent of the unit's average annual heat input during the previous three calendar years....</u>; and (ii) Fuel oil, for the remaining heat input, if any. – the permittee is no longer using diesel fuel as a fuel option.</p> <p>Gaseous fuel means a material that is in the gaseous state at standard atmospheric temperature and pressure conditions and that is combusted to produce heat.</p> <p>75.1 Purpose (a) establish requirements for the monitoring, recordkeeping, and reporting of sulfur dioxide (SO₂), nitrogen oxides (NO_x), and carbon dioxide (CO₂) emissions, volumetric flow, and opacity data from affected units under the Acid Rain Program.....</p> <p>75.2 Applicability (a) Except as provided in paragraphs (b) and (c) of this section, the provisions of this part apply to each affected unit subject to Acid Rain emission limitations or reduction requirements for SO₂ or NO_x.</p> <p>75.5 Prohibitions(e) No owner/operator shall disrupt CEMS or other approved emission monitoring avoiding monitoring and recording emissions except for periods of recertification, or periods when calibration, quality assurance, or maintenance is performed per 75.21 and appendix B.</p> <p>75.10 General operating requirements (a)(1) determine SO₂ emissions (see 75.11 Appendix D); (2) determine NO_x emissions with CEMS (3) determine CO₂ emissions – 3 options, see below.</p> <p>SO₂ Monitoring</p> <p>75.11(d)(2) Specific Provisions for Monitoring SO₂ Emissions – Permittee monitors SO₂ according to Part 75 Appendix D since the units qualify as a gas-fired as defined in 72.2 of this chapter.</p> <p>Appendix D - Optional SO₂ Emissions Data Protocol for Gas-Fired and Oil-Fired Units</p> <p>1.2 Initial Certification and Recertification requirements in 75.20 (g) must be completed to certify use of the optional SO₂</p>				

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
<p>emissions data protocol in Appendix D –includes meeting applicable general operating requirements of 75.10, requirements of appendix D, and initial certification or recertification requirements in 75.20.</p> <p>2.1 to 2.1.7.5 Fuel Flowmeter Measurements</p> <p>For each hour when the unit is combusting fuel, measure and record the flow rate of fuel combusted by the unit, except as provided in section 2.1.4 of this appendix. Measure the flow rate of fuel with an in-line fuel flowmeter, and automatically record the data with a data acquisition and handling system, except as provided in section 2.1.4 of this appendix.</p> <p>2.2 to 2.2.8 Oil Sampling and Analysis – permittee is longer using diesel fuel as a fuel option. Perform sampling and analysis of oil to determine the following fuel properties for each type of oil combusted by a unit: percentage of sulfur by weight in the oil; gross calorific value (GCV) of the oil; and, if necessary, the density of the oil.</p> <p>2.3 to 2.3.7 SO2Emissions From Combustion of Gaseous Fuels: (a) Account for the hourly SO2 mass emissions due to combustion of gaseous fuels for each hour when gaseous fuels are combusted by the unit using the procedures in this section.</p> <p>NOx Monitoring</p> <p>75.10(a)(2)- Owner/operator must measure both NO & NO2 with a NOx-diluent CEMs system with NOx pollutant concentration monitor, O2 or CO2 diluent gas monitor, and with an automated DAHS to measure and record NOx in ppm, O2 or CO2 in percent, and NOx emission rate in lb/MMbtu. 75.12 are the specific provisions for monitoring NOX emission rate. In lieu of diluents systems, owner may use a direct extract system.</p> <p>CO2 monitoring</p> <p>75.10(a)(i) Permittee measures CO2 emissions using the first of 3 options which requires a CO2 CEMs and flow monitoring system or equivalent with an automated DAHS to measure and record CO2 concentration in ppm, volumetric gas flow in scfh, and CO2 mass emissions in lbs/hr.</p> <p>Note: 75.10(d)(1) CEMs must be capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-min interval. The owner/operator shall reduce all emissions & volumetric flow data collected by the monitors to hourly averages. Hourly averages shall be computed using at least one data point in each fifteen minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Consent decree requires 20.2.33 NOx lb/MMbtu boiler 6, 7, & 8 emissions be limited as 3-hr averages rather than 1-hour ave (requested by El Paso Electric), 40 CFR 75 requires NOx lb/MMbtu emissions be reported as hourly averages, and maximum lb/hr (not 3-hr ave) emission limits are required to demonstrate compliance with ambient standards. El Paso Electric calculated the lb/hr emissions for the boilers used in modeling by converting from 0.30 lb/MMbtu. Permit writer verified with Robert Samaniego Feb 2010, that due to the requirements of the consent decree, the permit must include the 3-hr average NOx emission limit (lb/MMbtu) for boilers 6, 7, and 8. Since a 1-hour NOx emission limit (lb/hr) is also required, the permit will have two short term NOx limits, 1-hr (pph) and 3-hr (lb/mmbtu) for boilers 6, 7, and 8.</p>				
40 CFR 76	Title IV – Acid Rain Nitrogen Oxides Emission Reduction Program	No		Title IV NOx emission reduction program applies to coal-fired units. This facility does not combust coal but combusts only natural gas.
Title IV – Acid Rain 40 CFR 77	Excess Emissions	Yes	EPN-1, EPN-3, EPN-4, GT-9	This regulation applies to all the emission units that are covered by the Acid Rain Program regulation. Applies to boilers 6, 7, & 8 and turbine GT-9. Currently, the boilers 6, 7, and 8 have SO2 Phase II Allowance. [EPA is the administrator] (a) <i>Applicability.</i> The owners and operators of any affected source that has excess emissions of sulfur dioxide in any calendar year shall be liable to offset the amount of such excess emissions by an equal amount of allowances from the

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				source's compliance account.
40 CFR 82	Protection of Stratospheric Ozone	No		<p>According to the permittee, the facility does not “service”, “maintain” or “repair” class I or class II appliances nor “disposes” of the appliances.</p> <p>The permittee may be subject to record requirements at 82.150 as an owner/operator of an appliance that is serviced, maintained, repaired, or disposed.</p>

13.0 Exempt and/or Insignificant Equipment that do not require monitoring:

Title V - Insignificant Activities (Dated March 24, 2005) as defined by 20.2.70.7.QNMAC:

[Insignificant List Link](#)

Unit Number	Source Description	Make	Model No.	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction ²
			Serial No.	Capacity Units	Insignificant Activity citation (e.g. IA List Item #1. a)	Date of Installation /Construction ²
Maintenance Paints/Coatings	Paints and coatings are used for maintenance of equipment and buildings.	N/A	N/A	N/A	20.2.72.202 A.(1)	N/A
			N/A	N/A	IA List Item #1.a	N/A
Electrical Maintenance	Cleaning solvents and chemicals are used for maintenance purposes	N/A	N/A	N/A	20.2.72.202 A.(2)	N/A
			N/A	N/A	IA List Item #1.a	N/A
Plant Cleaning	Maintenance of electrical equipment is performed on site. Solvents used for this	N/A	N/A	N/A	20.2.72.202 A.(2)	N/A
			N/A	N/A	IA List Item #2	N/A

Unit Number	Source Description purpose	Make	Model No.	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction ²
			Serial No.	Capacity Units	Insignificant Activity citation (e.g. IA List	Date of Installation
AST4	Diesel oil storage tank 4. Storage of diesel fuel oil with vapor pressure < 10 mmHg	N/A	N/A	24,374	20.2.72.202.B.(2)(a)	2006
			N/A	bbl	IA List Item #5	1971
Piping fugitives	Emissions from piping in diesel oil service	N/A	N/A	N/A	20.2.72.202.B.(2)(a)	N/A
			N/A	N/A	IA List Item #1.a	N/A
AST9	Aqueous Ammonia < 20% @ 40 psig	N/A	N/A	476	20.2.72.202.B.(2)(a)	N/A
			N/A	bbl	IA List Item #1.a	N/A

14.0 New/Modified/Unique Conditions (Format: Condition#: Explanation):

- A. Table 102.A Total PTE: TSP changed to PM (particulate matter).
- B. Table 106.A Allowable Emissions: TSP (PM) removed from the table as there are no ambient air quality standards for TSP (PM).
- C. A110.A and B Fuel Sulfur: Some minor wording updates to align conditions with current Department monitoring protocol.
- D. A401.F Turbines: PM emissions: Removed reference to TSP.
- E. A402.B Boilers: PM emissions: Removed reference to TSP.
- F. A402.F Boilers: Boiler 6 PM2.5: Some wording clarifications for verb tense (change present tense to past tense).

15.0 For Title V action: Cross Reference Table between NSR Permit [1554-M1](#) and TV Permit [P127-R4](#). NSR permit conditions cross referenced to the TV permit are federally enforceable conditions, and therefore brought forward into the TV permit:

As there have been no NSR revisions since the previous TV renewal this section not needed (this action is renewal TV P127-R4 to previous TV P127-R3 comparison).

16.0 Permit specialist's notes to other NSR or Title V permitting staff concerning changes and updates to permit conditions.

- A. **Ozone Nonattainment:** This facility is now currently located within the Sunland Park Marginal Ozone Nonattainment Area (based on 2015 8-hour ozone NAAQS of 0.070 ppm) that was designated on April 30, 2018. The nonattainment area has recently been expanded and now also includes the remanded area of El Paso County Texas per Federal Register of 11-30-2021 (Additional Revised Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards: El Paso County, Texas and Weld County, Colorado; Vol. 86, No. 227, pages 67864-67874), with designated name of El Paso-Las Cruces, TX-NM. **This current situation will affect future NSR and PSD permitting assessments and determinations, including NMAC Part 79 nonattainment permitting.**
- B. **TSP:** TSP (now called PM, particulate matter) although remains a regulated pollutant per 20.2.70.7.AC(1) and per 20.2.74 NMAC Prevention of Significant Deterioration, TSP state ambient standards were repealed a few years ago and hence do not apply in Table 106 Allowable Emissions.

Previous permit writer notes from TV P127-R3 (with revised wording):

- A. **PM10 & PM2.5:** The permittee did not obtain a 20.2.72 construction permit for existing boilers 6, 7, and 8 and their cooling towers but chose to demonstrate compliance with NAAQS using air dispersion modeling and incorporation of conditions to show compliance with those standards as required by 20.2.70.201.D(3) NMAC. Although PM10 and PM2.5 emissions are not major, emission limits are applicable requirements in accordance with 20.2.70.7.E(1) and 20.2.7.AC(2) NMAC.
- B. Cember Hardison, the previous permit writer, reviewed all emission estimates in the previous NSR and Title V permit applications and no emission rates changed in TV Permits P127R2M2 or P127. The permittee reported greenhouse gas emissions in Table 2-P, however since these pollutants did not change any regulatory applicability and did not require an emission limit, these GHG emission estimates were not reviewed.
- C. Turbine GT-9 may require combustion core replacements during its useful life of the turbine. As of TV permit issuance date, a PSD applicability determination is required for turbine and core replacements.